



# **Section I**

## ***200 Area Materials & Waste Management***

### **PROJECT MANAGERS**

G.H. Sanders, RL  
(509) 376-6888

J.A. Van Vliet, DFSH  
(509) 373-0402

## INTRODUCTION

The 200 Area Materials and Waste Management consists of Project Baseline Summary (PBS) RL-CP02, Work Breakdown Structure (WBS) 3.3.2, except for ERDF.

NOTE: Unless otherwise noted, all information contained herein is as of the end of February 2002.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, and RL) shows that one milestone was completed early.

## NOTABLE ACCOMPLISHMENTS

**Hanford Transuranic (TRU) Certification** — Carlsbad Field Office (CBFO) has closed the Corrective Action Report (CAR) identified during the surveillance of Plutonium Finishing Plant (PFP) Non-Destructive Assay (NDA) and Visual Examination (VE) Technique (December 18-19, 2001). No open CBFO CARS remain.

**Headspace Gas Performance Demonstration Cycle** — The February 2002 headspace gas performance demonstration cycle has been successfully completed. Written notification of a "passing" grade was received from CBFO.

**MLLW Treatment** — The project received five shipments of treated waste from ATG. The shipments consisted of three loads (~38.3 m<sup>3</sup> pretreatment volume) of stabilized chromate waste and two shipments (~57.3 m<sup>3</sup> pretreatment volume) of macro-encapsulated MLLW debris. The treated chromate waste has been treated and reclassified as LLW and is awaiting disposal in the LLBG. The treated debris was disposed of in the Mixed Waste Disposal unit.

**TRU Waste Retrieval** — Submitted the Covered Transuranic Waste Retrieval Documented Safety Analysis (DSA) to RL on February 21, 2002.

**Plutonium Finishing Plant (PFP) Support** — Six Hanford Ash shipments were received, including a total of 77 Pipe Over-pack Containers (POCs) containing Hanford Ash. This supported completion of PFP's interim milestone for disposition of Hanford ash (M-83-09). A total of 290 POCs containing Hanford ash were shipped and received in support of the milestone.

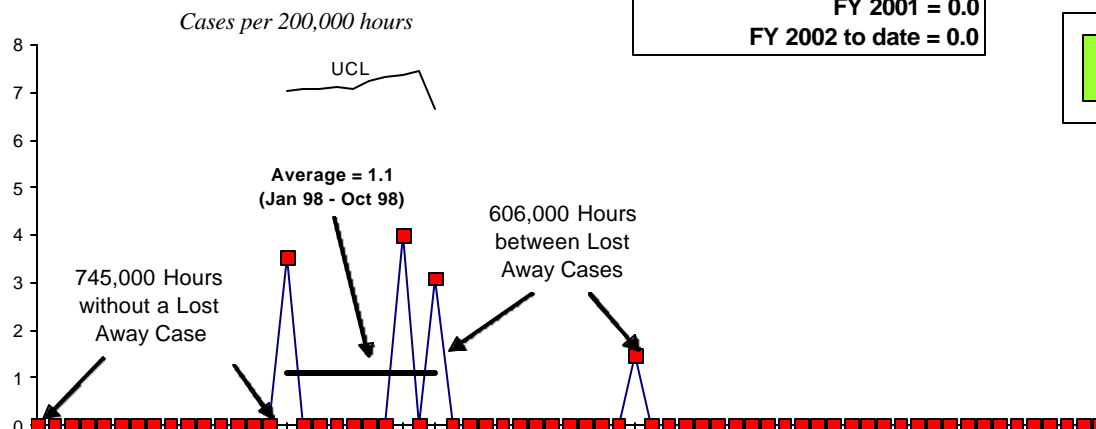
Seven shipments of 49 direct discard drums were received supporting completion of TPA interim milestone M-83-10. A total of 68 drums of absorbed Plutonium nitrate solution were shipped and received in support of the milestone.

**Liquid Waste Processing** — Processed over 10.5 million gallons of wastewater through the 200 Area Effluent Treatment Facility (ETF) thus far in FY 2002 supporting a variety of generators, including the Environmental Restoration Contractor (200-UP-1 Groundwater).

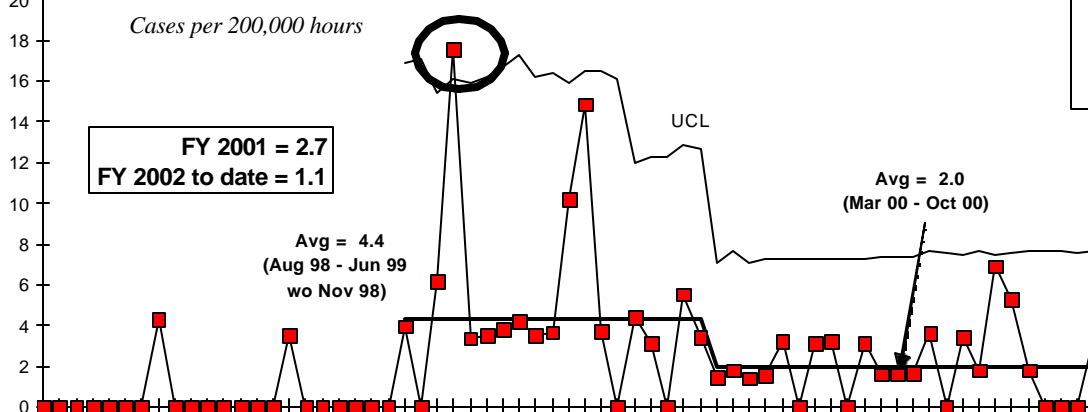
## SAFETY

At the end of February 2002, the project has reached 3.4 million safe work hours. The last lost time injury occurred in October 1999. The project has had only one "recordable" injury year to date. To date, there have been three OSHA recordable injuries with the Incident Rate (IR) standing at 1.1 at the end of February. The FH annual goal is 0.9. FY to date there have been 35 First Aid Only cases.

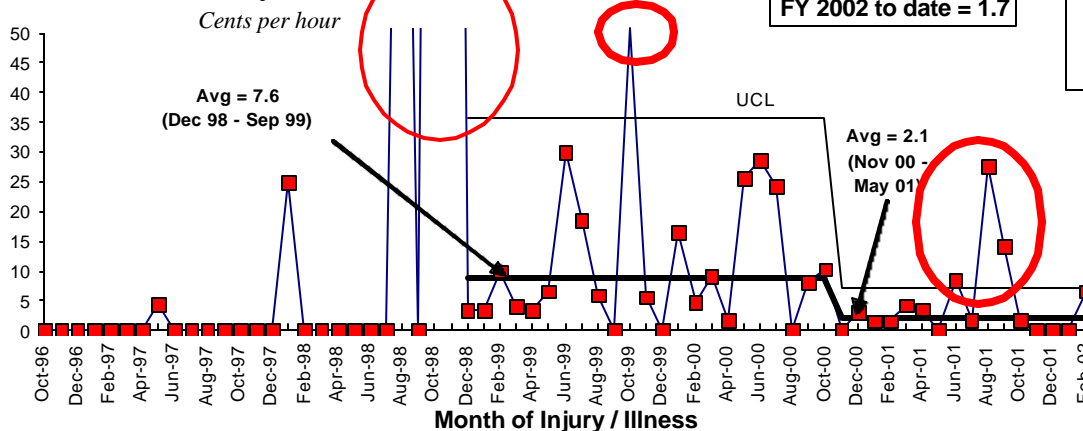
### Lost Away Workday Case Rate



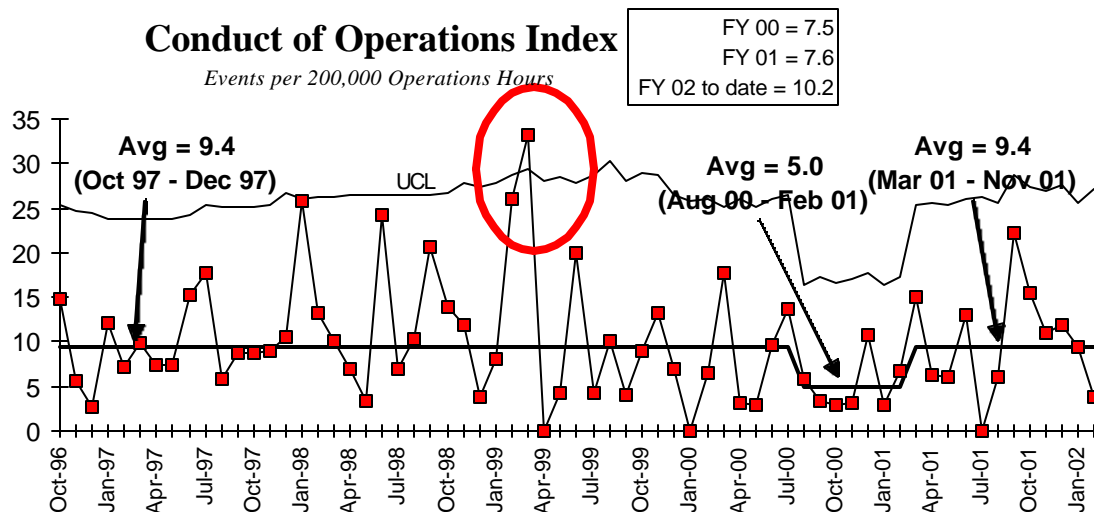
### OSHA Recordable Case Rate



### DOE Safety Cost Index



## CONDUCT OF OPERATIONS



## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### BREAKTHROUGHS

**Waste Retrieval and Packaging (WRAP) low-level waste glovebox line modifications** — Waste Management is proceeding with the modification of the WRAP low-level waste glovebox line to allow its use for TRU waste processing and super-compaction. This conversion will improve WRAP operating reliability, increase throughput capacity, and through the application of super-compaction to waste destined for the Waste Isolation Pilot Plant (WIPP), will offer considerable return on investment (savings) over the FH contract period. Matching funding to support this effort (\$355K in FY 2002, \$115K in FY 2003) was obtained from EM-50 through the Accelerated Site Technology Deployment program. The Technical Task Plan for managing the modification project has been completed. The conversion is anticipated to be completed by the second quarter of FY 2003.

### OPPORTUNITIES FOR IMPROVEMENT

No opportunities for improvement are identified at this time.

## UPCOMING ACTIVITIES

**Accelerate Readiness to Receive SNF K Basin Sludge** — 1) Develop and implement a recovery plan from the terminated Operational Readiness Review (ORR) for Shippingport (PA) fuel, 2) Initiate Shippingport fuel movement, and 3) Accelerate T Plant Canyon cell cleanout.

**MLLW Treatment** — Continue characterization and direct disposal activities. These include PFP HEPA filter and T Plant Ventilator unit disposition, both of which should conclude in May 2002. Activities also include verification and void fill of backlog soils drums at T Plant.

**Headspace Sampling Confirmatory Testing** — Contractual direction was received from RL to complete confirmatory testing of the "gas-tight seal" headspace gas sampling method. The results of the confirmatory testing will be provided to CBFO to support submittal of a permit modification to the WIPP

RCRA Permit. This permit modification is necessary to recover characterization data from 204 TRU waste drums previously sampled using this method at Hanford. Initial testing has been completed with favorable results.

**Waste Isolation Pilot Plant Waste Acceptance Criteria (WIPP WAC) Implementation** — The proposed revision of the WIPP WAC is required to be implemented by May 17, 2002. The revision requires significant changes in the non-destructive assay and transportation activities of the TRU Program affecting both WRAP and PFP TRU waste processing. Contractual direction is required from RL.

**TRU Waste Retrieval** — Receive comments from RL on the Documented Safety Analysis (DSA) by March 31, 2002. Receive a Finding of No Significant Impact (FONSI) on TRU Retrieval Environmental Assessment from RL in March 2002.

**Plutonium Finishing Plant (PFP) Support** — Continue to support residues processing with shipment of the new Sand, Slag and Crucible waste stream through FY 2003.

**300 Area Cleanup Support** — Support the removal of a Curium/Americium source from the 327 Facility. Continue support to the 324 Fuels Removal Project.

**Waste Encapsulation and Storage Facility (WESF) Operations** — Continue Beneficial Uses Shipping System (BUSS) Cask lay-up. Complete removal of chemical lines in the Aqueous Makeup (AMU). Support the accelerated capsule disposition initiative.

**Liquid Waste Processing** — Continue groundwater processing at the 200 Area ETF after completion of 242-A Cold Run Campaign at the end of March 2002. A 242-A Evaporator campaign is scheduled for late summer.

## MILESTONE ACHIEVEMENT

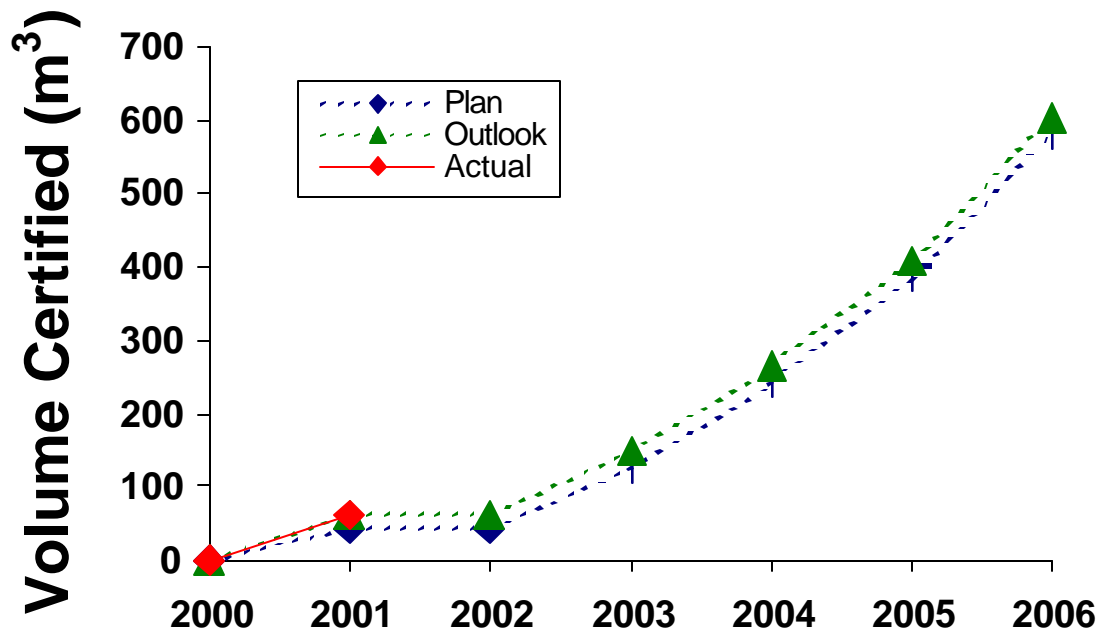
### FH Contract Milestones

| Number   | Milestone Title   | Type            | Due Date | Actual Date | Forecast Date | Status / Comment   |
|----------|---|-----------------|----------|-------------|---------------|--|
| M-19-00  | Complete Treat/Disp 1,644 CM of CH-LLMW                     | TPA Enforceable | 09-30-02 | 10-23-00    | 10-23-00      | COMPLETE   |
| M-7-1E   | Complete T Plant preparation for storage of K Basins sludge | PI Base         | 10-30-02 |             | 12-31-02      | Cell Cleanout behind schedule.                               |
| M-7-2A   | Complete ORR for K Basins Sludge Receipt                    | PI Base         | 10-30-02 |             | 10-30-02      | ON SCHEDULE  |
| M-91-12A | Treat 240 Cubic Meters by 12/31/2002                        | TPA Enforceable | 12-31-02 |             | 12-31-02      | Unachievable. Formal notification to RL submitted 2/11/2002. |
| M-91-20  | T Plant ready to rec. canister of K Basin floor pit sludge  | TPA Enforceable | 12-31-02 |             | 12-31-02      | Replanning Project.  |

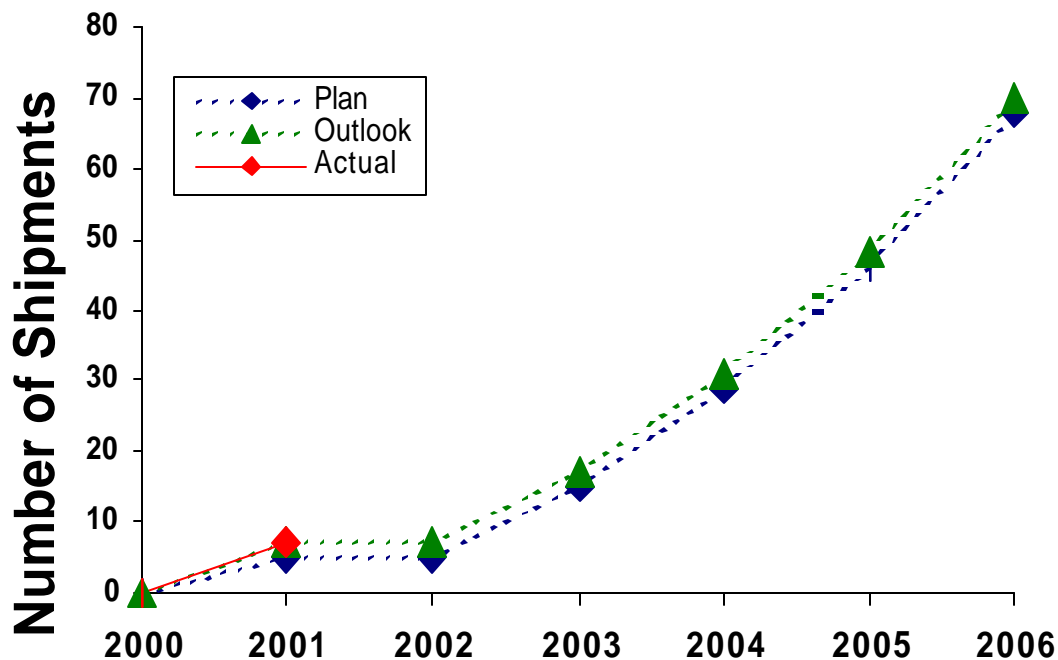
|          |  |                 |          |  |          |                               |
|----------|--|-----------------|----------|--|----------|-------------------------------|
| M-26-05J | Prep Biennial Tritium Treatment Tech Evaluation Report                 | TPA Enforceable | 08-31-03 |  | 08-31-03 | ON SCHEDULE                   |
| M-7-2B   | Complete Readiness Assessment K Basins Canister & Fuel Sludge Receipts | PI Base         | 01-01-04 |  | 01-01-04 | ON SCHEDULE                   |
| M-7-3B   | De-Post T Plant Canyon as Airborne Radiation Area                      | PI Stretch      | 01-01-04 |  | 01-01-04 | ON SCHEDULE                   |
| M-91-22  | T Plant ready to rec. Canister & fuel wash sludge from K Basin         | TPA Enforceable | 02-29-04 |  | 02-29-04 | ON SCHEDULE                   |
| M-91-07  | Complete W-113 for Post 1970 CH TRU / TRUM Retrieval                   | TPA Enforceable | 09-30-04 |  | 09-30-04 | Under renegotiation. Date TBD |
| M-1-2    | Consolidate Sitewide SNF in 200 A Dry Storage                          | PI Base         | 02-28-05 |  | 02-28-05 | ON SCHEDULE                   |
| M-26-05L | Prep Biennial Tritium Treatment Tech Evaluation Report                 | TPA Enforceable | 08-31-05 |  | 08-31-05 | ON SCHEDULE                   |
| M-5-2    | Complete Thermal Treatment 600 m <sup>3</sup> MLLW by 12/31/05         | PI Base         | 12-31-05 |  | 12-31-05 | ON SCHEDULE                   |
| M-5-1B   | Complete Treatment / Disposal 9820 m <sup>3</sup> of MLLW              | PI Stretch      | 06-30-06 |  | 06-30-06 | ON SCHEDULE                   |
| M-7-3C   | Clear Remaining Stored Equipment from T Plant Canyon Deck              | PI Stretch      | 06-30-06 |  | 06-30-06 | ON SCHEDULE                   |
| M-4-1D   | Retrieve 15,200 Suspect TRU Waste                                      | PI Stretch      | 09-30-06 |  | 09-30-06 | ON SCHEDULE                   |
| M-6-1A   | Certify 580 m <sup>3</sup> of TRU waste                                | PI Stretch      | 09-30-06 |  | 09-30-06 | ON SCHEDULE                   |
| M-6-1B   | Complete 68 TRU Waste Shipments to WIPP                                | PI Stretch      | 09-30-06 |  | 09-30-06 | ON SCHEDULE                   |

## PERFORMANCE OBJECTIVES

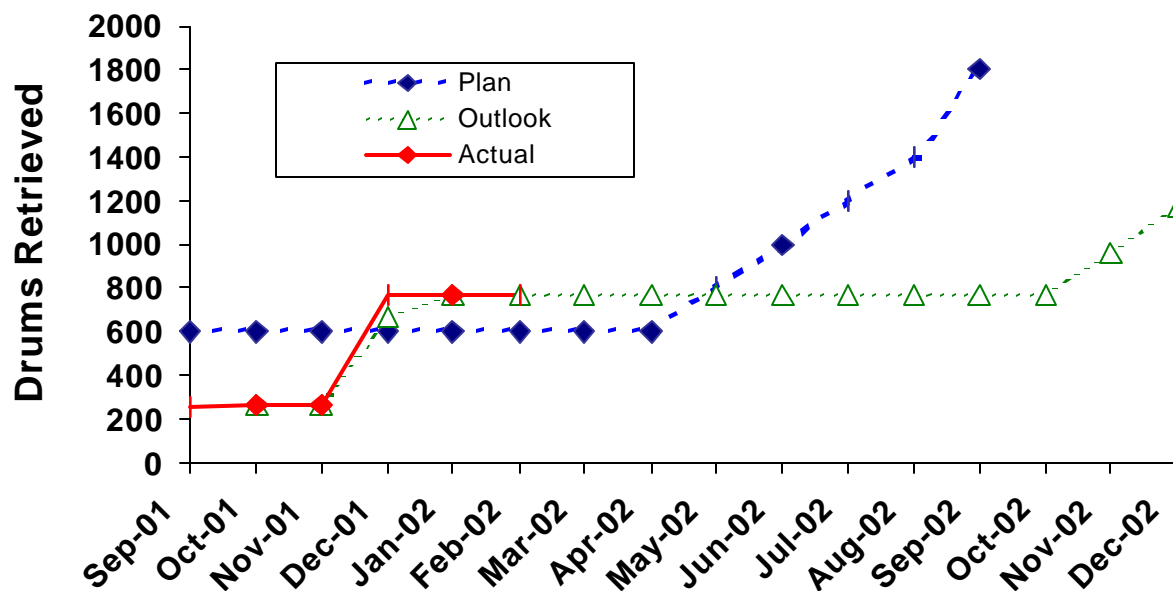
### CERTIFY TRU WASTE (FHI-M6)



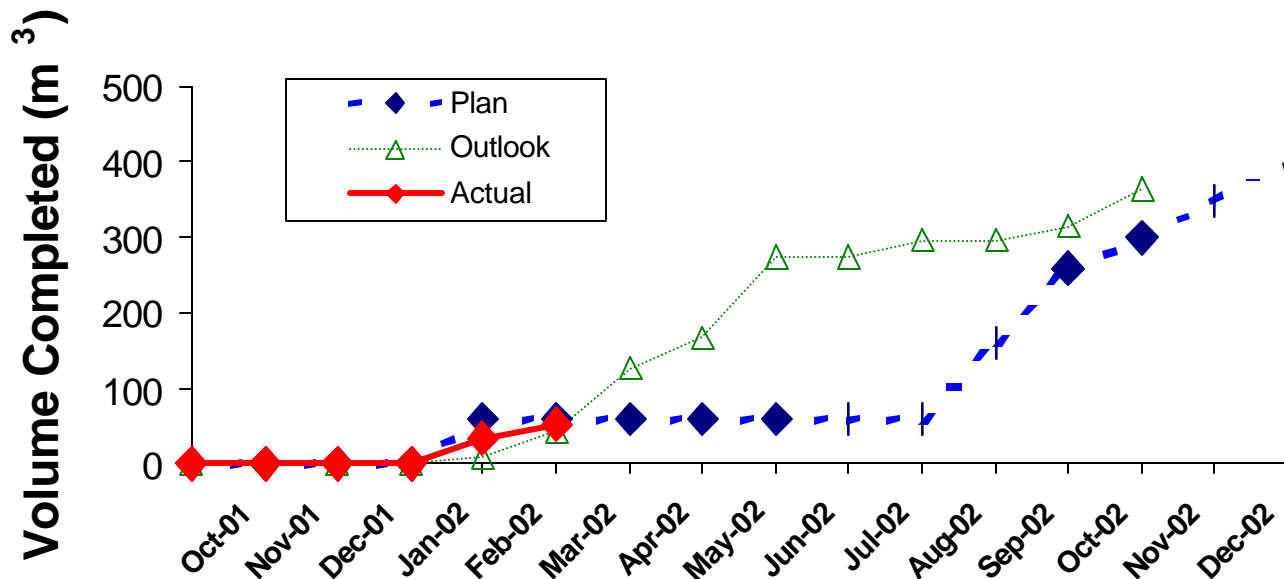
### SHIP TRU WASTE (FHI-M6)



### RETRIEVE TRU WASTE (FHI-M4)

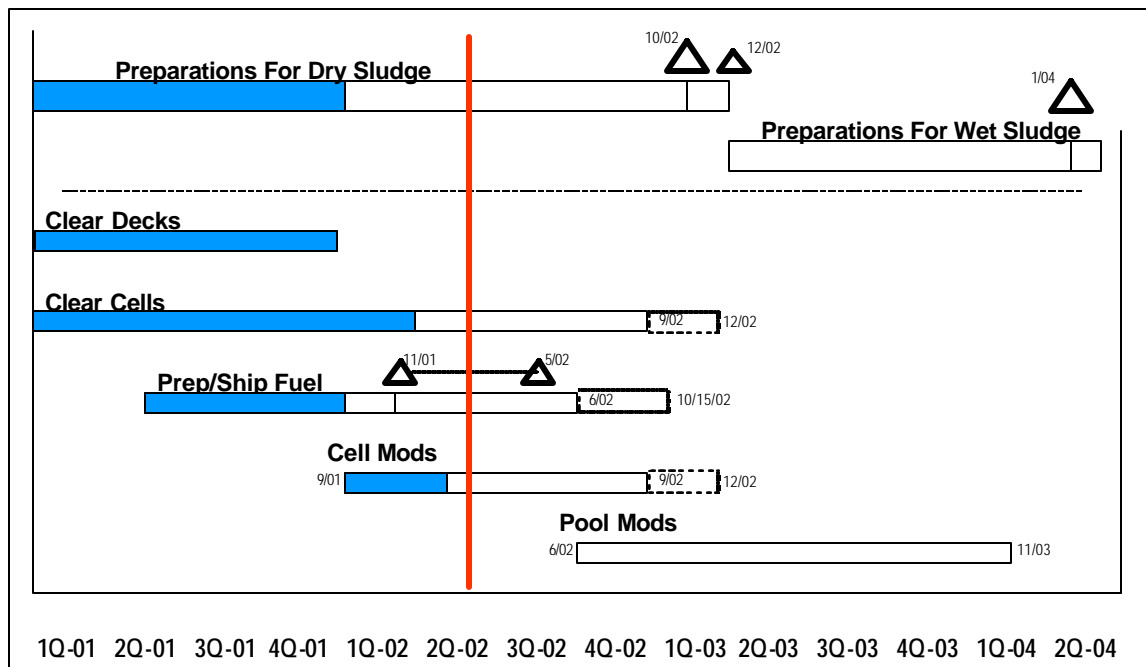


### TREAT AND DISPOSE MLLW (FHI-M5)





## ACCELERATE READINESS TO RECEIVE K-BASIN SLUDGE (FHI-M7)



Note: Replanning the project.

## FY 2002 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES FY TO DATE STATUS – (\$000)

|                         |                       | FYTD      |           |           |          |      |            |      |           |  |
|-------------------------|-----------------------|-----------|-----------|-----------|----------|------|------------|------|-----------|--|
|                         |                       | BCWS      | BCWP      | ACWP      | SV       | %    | CV         | %    | BAC       |  |
| PBS CP02<br>WBS 3.3.2.1 | SW Storage & Disposal | \$ 4,180  | 4328      | \$ 4,334  | \$ 148   | 4%   | \$ (6)     | 0%   | \$ 11,379 |  |
| PBS CP02<br>WBS 3.3.2.2 | MLLW Treatment        | \$ 759    | \$ 148    | \$ 155    | \$ (611) | -81% | \$ (7)     | -5%  | \$ 3,458  |  |
| PBS CP02<br>WBS 3.3.2.3 | SW Treatment          | \$ 3,800  | \$ 4,129  | \$ 5,529  | \$ 329   | 9%   | \$ (1,400) | -34% | \$ 10,678 |  |
| PBS CP02<br>WBS 3.3.2.4 | TRU Program           | \$ 4,664  | \$ 5,838  | \$ 4,490  | \$ 1,174 | 25%  | \$ 1,348   | 23%  | \$ 13,310 |  |
| PBS CP02<br>WBS 3.3.2.5 | WESF                  | \$ 2,925  | \$ 2,933  | \$ 2,801  | \$ 8     | 0%   | \$ 132     | 5%   | \$ 7,633  |  |
| PBS CP02<br>WBS 3.3.2.6 | 200 A LWPF            | \$ 5,866  | \$ 6,371  | \$ 5,883  | \$ 505   | 9%   | \$ 488     | 8%   | \$ 15,754 |  |
| PBS CP02<br>WBS 3.3.2.9 | Project Management    | \$ 8,059  | \$ 7,887  | \$ 7,024  | \$ (172) | -2%  | \$ 863     | 11%  | \$ 18,985 |  |
| Total                   |                       | \$ 30,253 | \$ 31,634 | \$ 30,216 | \$ 1,381 | 5%   | \$ 1,418   | 4%   | \$ 81,198 |  |

## FY TO DATE SCHEDULE / COST PERFORMANCE

The \$1.4 million (5 percent) favorable schedule variance was primarily due to the progress on and/or completion of FY 01 carryover work scope and credit taken for the TRU Program for work completed in FY 2001. The 200A LWPF RCRA campaign was completed one month ahead of schedule. The favorable variance was offset by the T Plant ORR for the spent fuel removal being stopped to resolve and implement assessment comments. Also, MLLW Treatment production is limited at ATG while under Chapter 11.

The \$1.4 million (4 percent) favorable cost variance was primarily due to FY 2001 carryover workscope costing less than planned, contracts not being placed and credit taken for the TRU Program for work completed in FY 2001. Increased costs for the T Plant spent fuel removal ORR preparation and assessment corrective actions offset the favorable variance.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

### Schedule Variance Analysis: (+\$1.4M)

#### MLLW Treatment — 3.3.2.2/CP02

**Description/Cause:** The unfavorable schedule variance is a result of treatment production being limited at ATG while under Chapter 11.

**Impact:** The TPA milestone M-91-12A is unachievable.

**Corrective Action:** The trustee is in the process of analyzing the path forward to get ATG running again. Non-thermal activities have been identified and are proceeding. Formal notification to RL that TPA milestone M-91-12A is unachievable was submitted February 11, 2002.

#### SW Treatment — 3.3.2.3/CP02

**Description/Cause:** The favorable schedule variance is due to the FY 2001 work scope, T Plant pre-filter replacement, being completed in November and the continued effort on the T Plant fan replacement project. The favorable variance was offset by the T Plant ORR for spent fuel removal being stopped to resolve and implement assessment comments.

**Impact:** Spent Fuel removal has been delayed to May 2002.

**Corrective Action:** ORR corrective actions are being implemented and a path forward for spent fuel removal has been implemented.

#### TRU Program— 3.3.2.4/CP02

**Description/Cause:** The favorable schedule variance is due to BCWP taken in October for 3 WIPP shipments completed in FY 2001 and NDE/NDA being ahead of schedule in FY 2002. Also, the FY 2001 TRU retrieval activity for uncovered drums was completed in January.

**Impact:** There is no significant project impact at this time.

**Corrective Action:** No corrective action needed.

#### 200A LWPF— 3.3.2.6/CP02

**Description/Cause:** The favorable schedule variance is due to completing the RCRA campaign one month early and completion of FY 2001 carryover upgrades.

**Impact:** None.

**Corrective Action:** No corrective action needed.

## Cost Variance Analysis: (+\$1.4M)

### SW Treatment — 3.3.2.3/CP02

**Description/Cause:** The unfavorable cost variance is due to the increased costs for the T Plant ORR preparation and assessment corrective actions.

**Impact:** T Plant will be over-run at year end.

**Corrective Action:** Actions have been implemented to resolve cost impacts to the WM Project.

### TRU Program— 3.3.2.4/CP02

**Description/Cause:** The favorable cost variance is due to BCWP taken in October for 3 WIPP shipments completed in FY 2001 and completion of FY 2001 carryover work scope.

**Impact:** There is no significant project impact at this time.

**Corrective Action:** No corrective action needed.

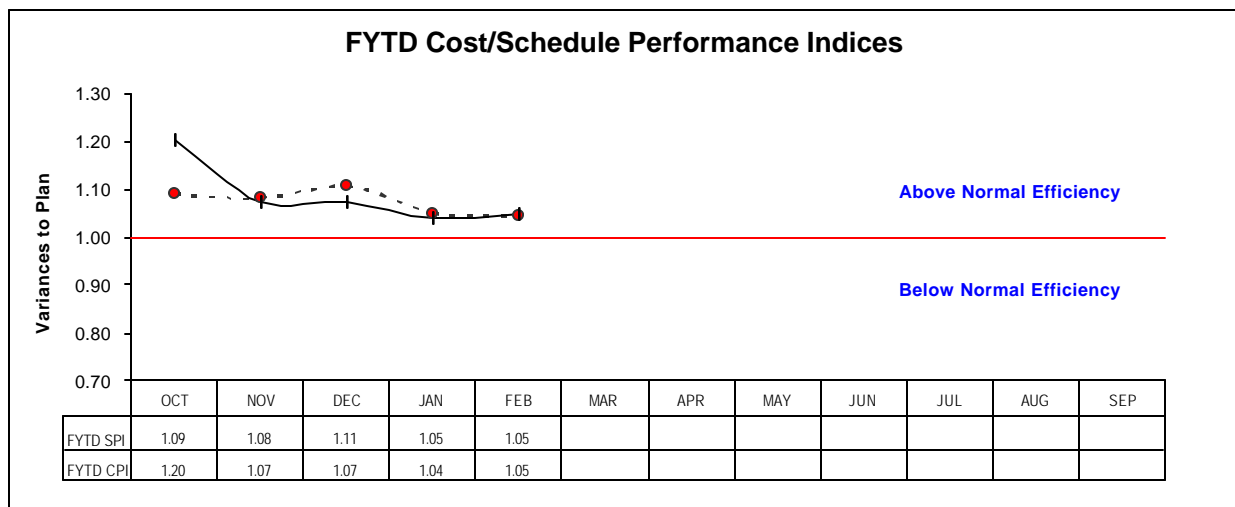
### Project Management — 3.3.2.9/CP02

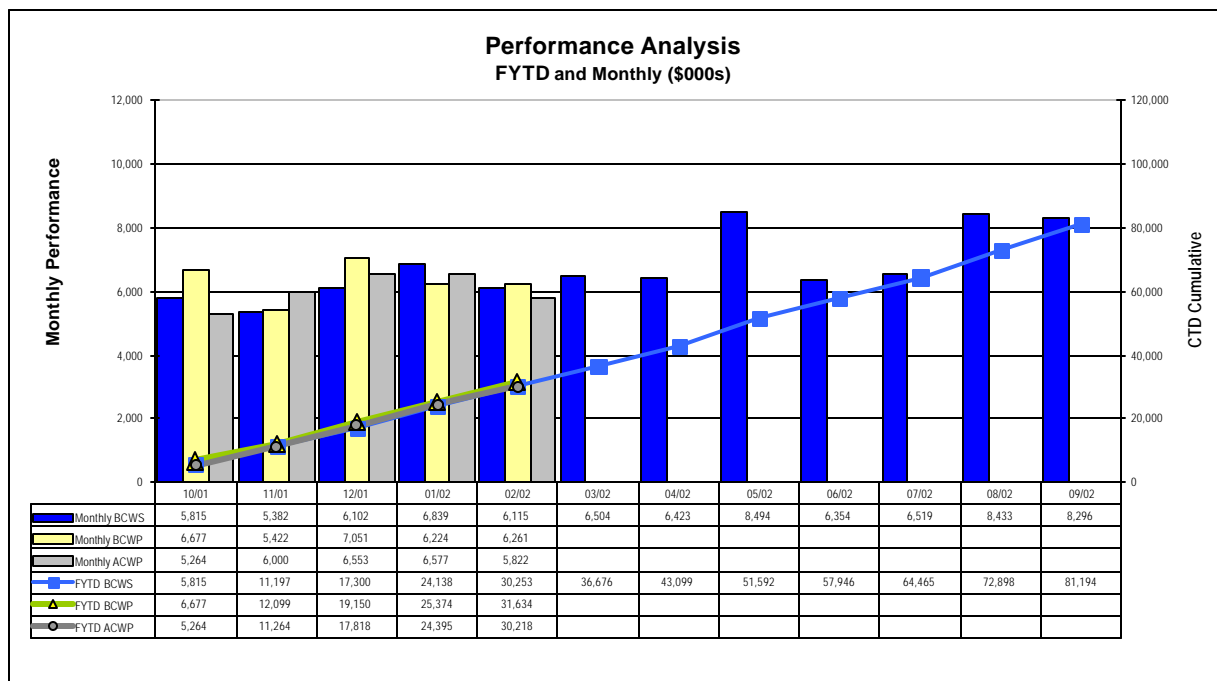
**Description/Cause:** The favorable cost variance is a result of contract work not being required for the SW EIS and CDI.

**Impact:** This results in a savings for the Waste Management.

**Corrective Action:** No corrective action needed.

## COST / SCHEDULE PERFORMANCE (MONTHLY AND FYTD)





## FUNDS MANAGEMENT

### FYTD FUNDS VS. SPENDING FORECAST (\$000)

|                                | FH Funds<br>Reallocation | FYSF      | Variance   |
|--------------------------------|--------------------------|-----------|------------|
| 3.3.2 Waste Management<br>CP02 | \$ 77,353                | \$ 78,846 | \$ (1,493) |
| Total                          | \$ 77,353                | \$ 78,846 | \$ (1,493) |

NOTES: (1) FH Reallocation reflects an FYSF adjusted for scope deletions, deferrals, and identified savings to address funding shortfalls, additional unplanned scope, and cost increases.  
(2) FYSF \$79M if TRU retrieval stopped 4/2/2002.

## ISSUES

### Technical Issue

**Issue:** Shippingport fuel movement and readiness to receive K Basin sludge are impacted by the T Plant ORR delay.

**Impact:** The Fluor Hanford Contractor Readiness Review Team terminated the T Plant ORR due to significant concerns with respect to Conduct of Engineering and Conduct of Operations. The resulting delay impacts the schedule for transferring Shippingport Fuel to the Spent Nuclear Fuel Canister Storage Building and T Plant's readiness to receive K Basin sludge.

**Corrective Actions:** Development of a recovery plan and schedule is underway. Implement approved recovery plan by March 22, 2002. Coordinate with SNF and reschedule balance of T Plant production by April 2002.

### External Issue

**Issue:** ATG's financial status jeopardizes project performance and TPA milestones.

**Impact:** Return shipments of treated non-thermal waste streams have been rescheduled to the week of March 11, 2002. Some of the debris wastes remain on hold for final processing (approximately 86 m<sup>3</sup>) until ATG receives approval to exceed the current operational authorization limit. The ATG Trustee met with FH contracts to discuss plans for operations and matters of contract need. It is clear that ATG needs additional waste contracts to begin recovery. Focus is on the MLLW Non-Thermal and LLW compaction lines. ATG has been requested by FH contracts to provide a needs list for both contracts and has requested a meeting with FH to discuss these proposals the week of March 11, 2002. Funding for this FY remains an issue in any recovery actions.

**Corrective Actions:** Alternatives continue to be considered with other commercial contracting entities under the "broad spectrum" contracts and on-site deployments.

### DOE Requests

**Issue:** RL authorization of the safety basis for retrieval of buried TRU drums is critical path to project startup.

**Impact:** The TRU Retrieval Documented Safety Analysis (DSA) was transmitted to RL on February 21, 2002. Approval was requested by March 31, 2002. If approval cannot be completed by this time, an extension to the existing Justification for Continued Operation (JCO) will be requested. The current JCO will expire on March 31, 2002, and it provides authorization for trench 24 of burial ground 218-W-4C to be operated as a Category II facility. The extension is needed to continue storage of containers located in this trench in compliance with our authorization.

**Corrective Actions:** FH's readiness assessment will be scheduled following RL approval of the DSA.

### Regulatory/DOE Issues

Nothing to report at this time.

## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

| BCR No./<br>Level 4 WBS | Date<br>Originated | Description         | Impact |                     | Date<br>Approved | Status                     |
|-------------------------|--------------------|---------------------|--------|---------------------|------------------|----------------------------|
|                         |                    |                     | Days   | Dollars<br>(\$000s) |                  |                            |
| CP02                    | 11/15/2001         | HEPA Filter Testing |        | \$3K                | 2/27/2002        | To be Implemented in March |
|                         |                    |                     |        |                     |                  |                            |
|                         |                    |                     |        |                     |                  |                            |

NOTES: "Impact" refers to the impact in terms of the number of days or dollars changing from the 9/30/01 baseline.  
"Date Approved" refers to date of change as approved by final approval authority.